



OPzS Series-Flooded Battery 12V 10PzS50(12V50Ah)

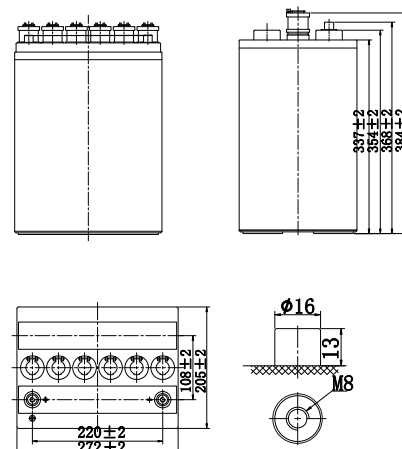


Specifications

Rated Voltage	12V	
Nominal Capacity	$C_{10}, 1.80V/cell$	50.0Ah
Dimension	Length	272±2mm (10.7 inches)
	Width	205±3mm (8.07 inches)
	Container Height	337±3mm (13.27 inches)
	Total Height	384±3mm (15.12 inches)
Approx Weight	Without Electrolyte	28.2kg (61.7lbs)
	With Electrolyte	39.0 kg (86.0lbs)
Terminal	M8	
Container Material	SAN transparent container	
Rated Capacity (25°C)	50.0 Ah	(10hr, 5.00A, 1.80V/cell)
	41.3 Ah	(5hr, 8.26A, 1.75V/cell)
	35.4 Ah	(3hr, 11.8A, 1.75V/cell)
	26.9 Ah	(1hr, 26.9A, 1.60V/cell)
Max. Discharge Current	440A (5s)	
Internal Resistance (25°C)	Approx 16.5mΩ	
Operating Temp. Range	Discharge	-15 ~ 55°C (5 ~ 131°F)
	Charge	0 ~ 45°C (32 ~ 113°F)
	Storage	-15 ~ 45°C (5 ~ 113°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 0.1CA. Voltage 2.35V~2.40V at 20°C(68°F)Temp. Coefficient -3mV/°C	
	Initial Charging Current less than 0.1CA. Voltage 2.25V~2.30V at 20°C(68°F)Temp. Coefficient -2mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	≤4% per month at 25°C	



Layout



Constant Current Discharge (Amperes) at 20 °C (68°F)

F.V/Time	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	36.8	29.3	20.5	13.3	10.4	8.63	7.46	5.47	4.66	2.50
1.80V/cell	43.4	32.6	22.2	14.4	11.1	9.19	7.94	5.86	5.00	2.68
1.75V/cell	49.6	35.2	23.6	15.3	11.8	9.64	8.26	6.03	5.10	2.71
1.70V/cell	54.0	37.7	24.8	15.9	12.2	10.0	8.57	6.19	5.18	2.75
1.65V/cell	57.8	39.6	26.0	16.4	12.4	10.2	8.75	6.29	5.26	2.78
1.60V/cell	61.0	41.2	26.9	16.9	12.7	10.4	8.92	6.38	5.34	2.81

Constant Power Discharge (Watts/cell) at 20 °C (68°F)

F.V/Time	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	69.7	56.3	39.7	26.0	20.4	16.90	14.70	10.80	9.21	4.96
1.80V/cell	80.5	61.4	42.4	27.8	21.5	17.80	15.40	11.40	9.77	5.23
1.75V/cell	90.7	65.6	44.4	29.0	22.4	18.40	15.80	11.60	9.81	5.23
1.70V/cell	97.5	69.5	46.4	30.0	23.0	19.0	16.30	11.80	9.89	5.25
1.65V/cell	102.9	72.2	48.2	30.6	23.3	19.2	16.50	11.90	9.97	5.27
1.60V/cell	106.7	74.0	49.1	31.1	23.6	19.3	16.60	11.90	9.99	5.27



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Applications

- Telecommunications
- Buoy lighting
- Standby power
- Railway signalling
- Emergency lighting systems
- Alternative power (solar, wind)
- Maritime standby power on ships and ashore

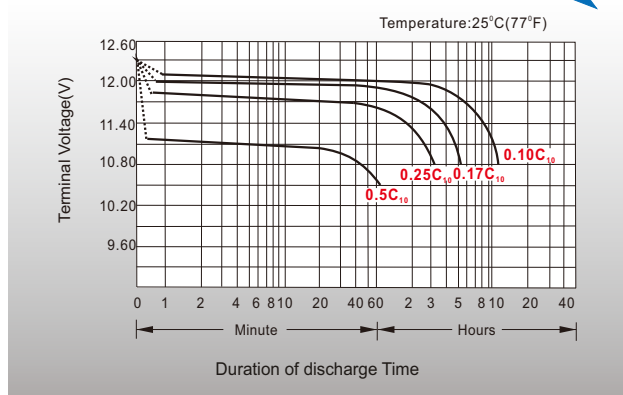
General Features

- 20 years design life(25°C)
- Lower self discharge
- Higher thermal capacity, no thermal runaway will occur
- Superior deep cycle performance
- Wide operation temperature range

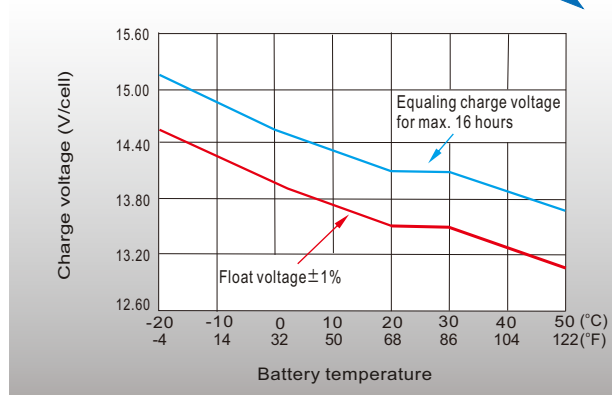
Standards

- Compliance with IEC60896 standards
- Manufactured in Leoch@IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

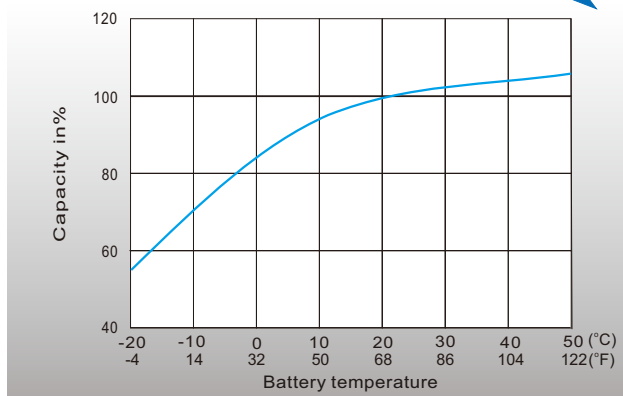
Discharge Characteristics



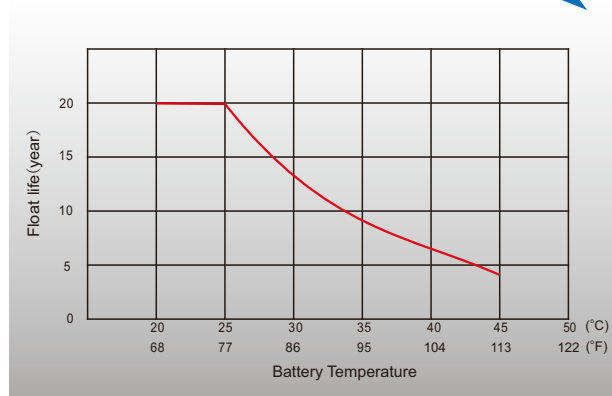
Charge voltage Vs ambient temperature curve



Discharge capacity Vs Ambient temperature curve (I10A)



Float Service Life



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Publication No.:LB-12V 10PzS50-PD-EN-V1.1-202006